IN THE CLAIMS

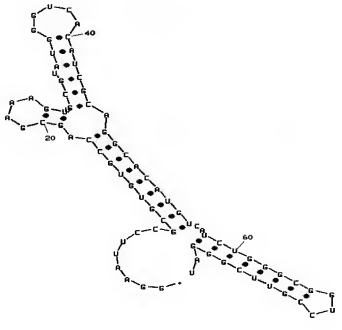
Please cancel claims 8 and 9 and amend claims 4 and 21 as follows:

1. (ORIGINAL) An isolated nucleic acid molecule that binds HER3 polypeptide (SEQ ID NO: 2), wherein the nucleic acid molecule comprises the sequence: 5'-CAGCGAAAGUUGCGUAUGGGUCACAUCGCAG-3' (SEQ ID NO: 19).

2. (ORIGINAL) The nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises the sequence shown in SEQ ID NO: 7, SEQ ID NO: 12, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17 or SEQ ID NO: 18.

3. (ORIGINAL) The nucleic acid molecule of claim 1, wherein the nucleic acid molecule further comprises a fluorine moiety or an amino moiety.

4. (CURRENTLY AMENDED) The nucleic acid molecule of claim 1, wherein the nucleic acid molecule forms a hairpin loop structure:



~~as shown in Figure 10 and further comprises a stem structure as shown in Figure 10 comprised of at least 1, 2, 3, 4, 5 or 6 base pairs.~~

5. (ORIGINAL) The nucleic acid molecule of claim 1, wherein the nucleic acid molecule is labeled with a detectable marker.

6. (ORIGINAL) A vector comprising the nucleic acid molecule of claim 1, wherein uridine (U) is replaced with thymidine (T).

7. (ORIGINAL) A host cell comprising the vector of claim 6.

8-9. (CANCELLED)

10. (ORIGINAL) A method of binding a nucleic acid molecule comprising the sequence 5'-CAGCGAAAGUUGCGUAUGGGUCACAUCGCAG-3' (SEQ ID NO: 19) to a HER3 polypeptide encoded by a polynucleotide of SEQ ID NO: 1 comprising combining the nucleic acid molecule and the HER3 polypeptide for a time and under conditions effective to allow the nucleic acid molecule to bind to the HER3 polypeptide such that said binding occurs.

11. (ORIGINAL) The method of claim 10, wherein the nucleic acid molecule is combined with HER3 polypeptide expressed on the surface of a human cell and the method further comprises the step of examining the affinity of the nucleic acid molecule for the HER3 polypeptide.

12. (ORIGINAL) The method of claim 10, wherein the nucleic acid molecule is combined with HER3 polypeptide expressed on the surface of a human cell and the method further comprises the step of examining the number of nucleic acid molecule binding sites in the HER3 polypeptide.

13. (ORIGINAL) The method of claim 10, wherein the nucleic acid molecule is

combined with HER3 polypeptide expressed on the surface of a human cell that further expresses HER2 polypeptide (SEQ ID NO: 6) and the method further comprises examining the human cell for evidence of said binding, wherein the inhibition of heregulin (SEQ ID NO: 4) induced tyrosine phosphorylation of HER2 in the human cell provides evidence of said binding.

14. (ORIGINAL) The method of claim 10, wherein the nucleic acid molecule is combined with HER3 polypeptide expressed on the surface of a human cell that further expresses HER2 polypeptide (SEQ ID NO: 6) and the method further comprises examining the human cell for evidence of said binding, wherein the inhibition of heregulin (SEQ ID NO: 4) induced growth in the human cell provides evidence of said binding.

15. (ORIGINAL) The method of claim 10, further comprising examining the HER3 polypeptide for evidence of said binding via a native gel mobility shift assay.

16. (ORIGINAL) The method of claim 10, further comprising examining the affinity of the nucleic acid molecule for the HER3 polypeptide.

17. (ORIGINAL) The method of claim 10, further comprising examining the number of binding sites for the nucleic acid molecule present on the HER3 polypeptide.

18. (ORIGINAL) The method of claim 10, wherein the nucleic acid molecule and the HER3 polypeptide are combined in vitro.

19. (ORIGINAL) The method of claim 10, wherein the nucleic acid molecule and the HER3 polypeptide are combined in vivo.

20. (ORIGINAL) The method of claim 10, wherein the nucleic acid molecule is labeled with a detectable marker.

21. (CURRENTLY AMENDED) A kit comprising the nucleic acid molecule of claim 1 and written material describing methods for its use.